

TYPE I

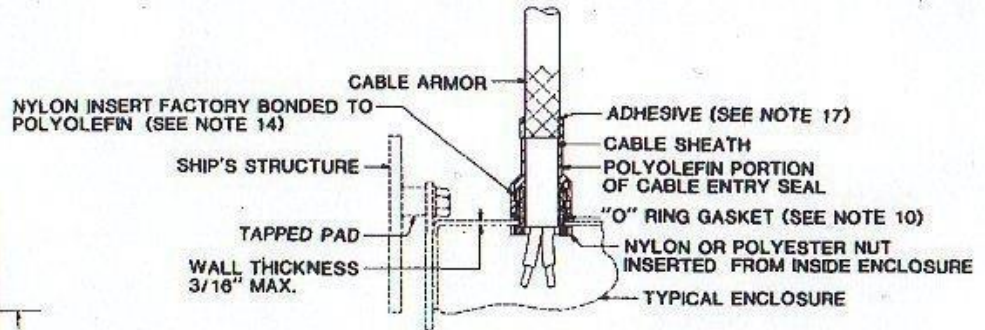
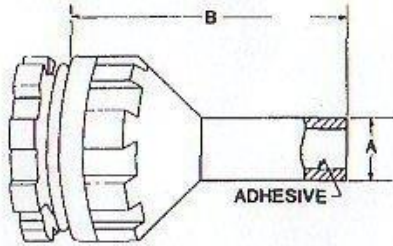
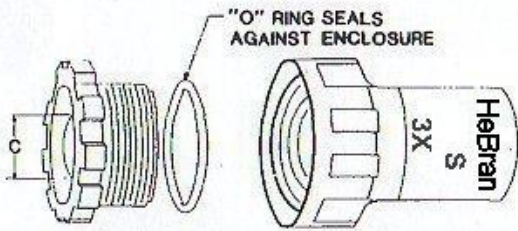


TABLE 1
CABLE ENTRY SEAL
DIMENSIONS (INCHES)

HeBran PART NO.	OLD PART NO.	A		B NOM.	C MIN.	DRILL SIZE
		EXP.	REC.			
S-2	1B13-01	.750	.250	2.750	.750	1.00
S-3	1B13-02	1.200	.500	3.750	1.100	1.38
S-4	1B13-03	1.700	.750	4.500	1.600	2.00

(ALSO AVAILABLE IN MULTIPLE CONDUCTOR SIZES FROM APPROVED MANUFACTURES)

- 18. THESE SEALS SHALL NOT BE INSTALLED IN AREAS EXPOSED TO WEATHER.
- 19. THIS FIGURE SUPERSEDES SHEET 1B13 OF DRAWING 803-5001027.

FIGURE 1B13. Heatshrink cable entry seal applicable to watertight and non-watertight enclosures.

SH 132316980

INSTALLATION NOTES: HeBran Cable Entry Seal

1. INSPECT THE CLEARANCE HOLE WHICH HAS BEEN DRILLED OR PUNCHED IN THE ENCLOSURE FOR THE TUBE AS INDICATED IN TABLE I, AND REMOVE ANY BURRS OR IRREGULARITIES. THE SURFACE MUST MEET THE SPECIFICATION FOR A NORMAL "O" RING SEAL. (SEE NOTE 2, FIGURE 1C1).
2. TYPE I: PLACE RIGID, EXTERNALLY THREADED NUT THROUGH HOLE SO THAT THE FLANGED END IS ON THE INSIDE OF THE CAN OR CABINET. TYPE II: PLACE THE END NUT INSIDE THE CABINET AND INSERT THE EXTERNALLY THREADED INTO THE NUT.
3. PLACE "O" RING OVER THREADED END AND POSITION AGAINST OUTSIDE OF CAN OR CABINET.
4. SCREW SHRINKABLE, INTERNALLY THREADED COMPONENT (SHRINK PORTION) ON RIGID NUT. TIGHTEN THE MALE AND FEMALE PARTS WITH APPROPRIATE SPANNER WRENCHES.
5. TO PREPARE THE CABLE FOR ENTERING THE ELECTRICAL ENCLOSURE, PROCEED IN THE NORMAL MANNER BY REMOVING ENOUGH ARMOR TO ALLOW FOR THE CONDUCTORS TO REACH THE REMOTEST LOCATION ON THE CONNECTION BLOCK WITH REASONABLE AMOUNT OF SLACK. WHEN REMOVING THE SHEATH FROM THE CONDUCTORS, BE SURE TO LEAVE ENOUGH SHEATH EXTENDING THROUGH THE ARMOR TO OBTAIN A MAXIMUM SEAL BETWEEN THE SHRINKABLE NOSE AND THE SHEATH. NORMALLY, 1/4" TO 3/8" OF THE ARMOR MUST BE INSIDE THE CABLE ENTRY SEAL, THEN THE SHEATH SHOULD EXTEND THROUGH THE NOSE (SHRINK SECTION). SEE METHOD 1B131, THIS SHEET, FOR PROPER INSTALLATION. (NOTE: THE WATERSEAL IS ACCOMPLISHED BY THE FACTORY APPLIED SEALANT FORMING A MECHANICAL BOND BETWEEN THE NOSE OF THE CABLE ENTRY SEAL AND THE CABLE SHEATH, WHEN THE NOSE IS SHRUNK TO THE CABLE). AVOID UNNECESSARY CUTTING OF THE SHEATH AND CONDUCTOR INSULATION DURING THE PROCESS OF PREPARATION. IF IT IS NOT POSSIBLE OR DESIRABLE TO SECURE THE ARMOR UNDER THE SHRINKABLE NOSE, THEN USE TAPE OR SHRINK TUBING TO KEEP THE ARMOR FROM UNRAVELLING AS DESCRIBED IN METHOD 3C21.
6. PREPARE THE CONDUCTORS FOR MAKING THE ELECTRICAL CONNECTIONS.
7. INSERT THE CABLE THROUGH THE PREVIOUSLY ASSEMBLED UNIT AND INTO THE ENCLOSURE SO AS TO "TRAP" THE ARMOR INSIDE THE NOSE AND EXTEND THE CABLE SHEATH THROUGH THE SHRINK PORTION OF THE ENTRY SEAL. THE CONDUCTORS MAY BE CONNECTED AT THIS POINT, BEFORE SHRINKING, IF NECESSARY, TO ELECTRICALLY CHECK OUT. IT MAY BE DESIRABLE TO WAIT UNTILL ALL CABLES ARE INSTALLED AND CHECKED OUT BEFORE SHRINKING ANY OF THE CABLE ENTRY SEALS.
8. SHRINK EXPANDED OPENING IN THE CABLE ENTRY SEAL BY APPLYING HEAT (250°-275°F), USING HOT AIR BLOWER (HEAT GUN WITH CIRCULAR DEFLECTOR), GAS TORCH (E.G.: PROPANE OR BUTANE), OR OTHER HEAT SOURCE. WHEN PART HAS BEEN FULLY SHRUNK AND ASSUMES THE CONFIGURATION OF THE CABLE, DISCONTINUE HEATING. ADDITIONAL HEATING WILL NOT MAKE THE COMPONENT SHRINK TIGHTER.
9. "O" RINGS SHALL BE FURNISHED BY THE MANUFACTURER, AS A PART OF THE COMPLETE CABLE ENTRY SEAL.
10. THE CABLE ENTRY SEAL SHOWN ON THIS SHEET IS SUITABLE FOR ALL THIN WALL ENCLOSURES UP TO AND INCLUDING 3/16" THICK.
11. GROUNDING, IF REQUIRED, WILL BE ACCOMPLISHED ACCORDING TO THE APPLICABLE REQUIREMENTS OF MIL-STD-1310.
12. THE RIGID PLASTIC PARTS SHALL BE MADE FROM POLYAMIDE MATERIAL IN ACCORDANCE WITH TYPE II OF MIL-M-20693 OR POLYESTER PER MIL-M-24519 PARAGRAPH 4.7.
13. MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF MIL-I-81765/1 TYPE I.
14. THE ADHESIVE USED TO BOND THE POLYOLEFIN TO THE NYLON (POLYAMIDE) INSERT MUST BE IN ACCORDANCE WITH MIL-A-48050.
15. SEALS MUST NOT BE INSTALLED IN ANY CABINET OR DEVICE IN WHICH NORMALIZED TEMPERATURE (AMBIENT PLUS TEMP RISE) WILL EXCEED 185°F (85°C). APPLICATION IS LIMITED TO 20 PSI WATER PRESSURE MAX. THESE SEALS ARE NOT TO BE USED WITH ANY CABLE IN WHICH THE NORMALIZED TEMP. WILL EXCEED 185°F (85°C)
16. THESE SEALS ARE CONSIDERED AS AN ALTERNATE TO NYLON STUFFING TUBES WHEN MEETING THE PERFORMANCE REQUIREMENTS OF MIL-S-19622.
17. THE SEAL SHALL BE COATED WITH AN ADHESIVE WHICH MEETS THE ADHESIVE REQUIREMENTS SPECIFIED IN SECTION 1, GROUP A, SHEET 6. FOR APPROVED MANUFACTURERS LIST CONTACT CMDR, DEPT. OF THE NAVY, WASH DC 20362 NAVSEA CODE 56234.

DOD-STD-2003-1 (NAVY)
24 JUNE 1987

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